

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An isolated ~~modified-rat prostate apoptosis responsive 4~~ (Par-4) protein fragment comprising a ~~substitution of least one amine acid residue in the amino acid sequence of a precursor Par-4 in at least one position of naturally produced Par-4, selected from the group consisting of amino acids 1-204, 137-221, 137-213, 137-198 and 137-195 of the Par-4 protein~~ wherein the ~~modified~~ Par-4 protein fragment is effective in reducing the size of tumors resistant to apoptosis by Par-4 ; ~~and wherein the modified Par-4 is a Par-4s.~~

Claim 2-5 (Cancelled)

6. (Currently Amended) An isolated fusion polypeptide comprising at least five ~~amino acid residues, wherein the polypeptide has a sequence encoded by a nucleic acid contained in one or more sequences comprising at least 500 contiguous nucleotides including a polymorphic site comprising the mutant of a Par-4 fragment~~ selected from the group consisting of amino acids 1-204, 137-221, 137-213, 137-198 and 137-195 of Par-4 protein.
7. (Withdrawn-Currently amended) A method of producing a polypeptide, comprising incubating a host cell comprising a nucleic acid encoding ~~[[a]] the Par-4 protein fragment polypeptide~~ of claim ~~[[4]] 1~~ under conditions that permit expression of the Par-4 protein fragment polypeptide.
8. (Withdrawn) A method of producing a polypeptide, comprising incubating a cell of claim 5 under conditions that permit expression of one or more polypeptides encoded by the nucleic acid.

Claim 9. Cancelled)

10. (Withdrawn) A method of screening for therapeutic agents comprising selecting an X-associated specific sequence as a target sequence; contacting a test compound with the target sequence; and selecting as candidate therapeutic agents those test compounds which bind to the target sequence.

11. (Withdrawn) The method of claim 9, wherein the sequence is a polypeptide encoded by one or more sequences of claim 3.

Claims 12-17 (Cancelled)

18. (Withdrawn-currently amended) A method of treating cancer in a subject suffering therefrom, comprising administering to the subject a modified Par-4 mutant protein selected from the group consisting of amino acids 1-204, 137-221, 137-213, 137-198 and 137-195 of the Par-4 protein, wherein the administration of the Par-4 mutant protein causes reduction of tumors resistant to apoptosis by Par-4.

19. (Withdrawn) The method of claim 18, wherein the cancer is selected from the group consisting of prostate cancer, breast cancer and lung cancer.

20. (Withdrawn) The method of claim 18, wherein the subject is selected from the group consisting of a canine, a feline, an ovine, a primate, an equine, a porcine, a caprine, a camelid, an avian, a bovine, amphibian, fish or a murine organism.

21. (Withdrawn) The method of claim 20, wherein the subject is a primate.

22. (Withdrawn) The method of claim 21, wherein the subject is human.

23. (Withdrawn) The method of claim 18, wherein the Par-4 mutant a mutant of Par-4 selected from the group consisting of 1-204, 137-221, 137-213, 137-198 and 137-195.

24. (Currently Amended) A pharmaceutical composition for the treatment of cancer, comprising an isolated and purified modified Par-4 protein mutant

~~comprising the amino acid sequence comprising at least 500 contiguous~~
~~nucleotides including a polymorphic site comprising a mutant of Par-4~~
selected from the group consisting of amino acids 1-204, 137-221.137-213,
137-198 and 137-19 of the Par-4 protein, and a pharmaceutically
acceptable diluent, carrier or excipient.